LANGUAGE OF THE BIRDHAWAL TRIBE, IN GIPPS-LAND, VICTORIA.

By R. H. MATHEWS, L.S.

(Read October 4, 1907.)

In the following contribution I shall endeavor to give an outline of the grammatical structure of the language of the Birdhawal tribe, prepared from notes taken by myself among the survivors of these people. Their hunting grounds were mainly in the extreme eastern corner of the State of Victoria, but they also occupied a small strip of country within the New South Wales frontier. Their boundary may be approximately defined as follows: Commencing on the sea coast, at Cape Conron, and reaching thence along the coast to Mullacoota Inlet, including the following rivers and their tributaries—Bemm, Cann, Thurra, Wingan and Genoa. The Birdhawal territory extended inland from the sea coast to Bonang, Delegete, Craigie, and some other places in that district.

It will be seen that the foregoing description crosses the boundary between New South Wales and Victoria, and takes in the head waters of the Queenboro, Bondi and Nungatta creeks.

The initiation ceremony of the Birdhawal tribe, known as the *Dyerrayal*, has been described by me with considerable fullness in a contribution to the Anthropological Society of Vienna, to which the reader is referred.

All along their western side, the Birdhawal are met by the Kurnai tribe, for a description of the extent of whose territory the reader is referred to my article on "The Victorian Aborigines," which I contributed to the Anthropological Society of Washington, U. S. A., in 1898.² For a short grammar and vocabulary of the Kurnai, see my "Aboriginal Languages of Victoria," contributed to the Royal Society of New South Wales in 1902.³

¹ Mitteil. d. Anthrop. Gesellsch. in Wien. Band XXXVII, 1907.

² American Anthropologist, XI., pp. 326-330, with a map showing the distribution of the Native Tribes of Victoria.

⁸ Journ. Roy. Soc. N. S. Wales, XXXVI., pp. 71-106.

Among the Kurnai, bra means mankind, but kurnai or kunnai distinguishes one of their own men. In the Birdhawal, mawp means mankind, whilst gidyang signifies a man of their own tribe. Detachments of the Birdhawal community who inhabited the densely timbered tracts, were called waggarak. The Birdhawal call their own dialect mūk-dhang, but they distinguish the dialect of the Kurnai as gūnggala-dhang. The termination dhang in both instances means "mouth," and is symbolical of speech. It may also be mentioned that the Kurnai call their own local dialect mūk-dhang, and that of the Birdhawal kwai-dhang. Mūk means good or great, and kwai signifies rough; I forget the meaning of gūnggala.

If we take the whole of that portion of the State of Victoria lying to the east of the 146th meridian of longitude, and situated between the sea coast and the great dividing range or Australian Alps, we find that the language of the native tribes has the same grammatical structure. This region of Victoria is commonly known as Gippsland, and the language prevailing over the whole area is the Birdhawal, or dialects of the Birdhawal. A glance at a map of Victoria will show that this tract of country embraces the entire sea coast from Cape Howe westerly to Waratah Bay, and extends thence northerly to the great dividing range.

The social organization of the Birdhawal is substantially the same as that of the Woïwurru, Bunwurru, Thagungwurru and other tribes, which has been described by me elsewhere.¹ The social structure of the Birdhawal is also analogous to that of the Thurrawal and kindred tribes situated to the northeast of them in New South Wales, with which I have already dealt in several publications.

ORTHOGRAPHY.

The system of orthoëpy adopted is that recommended by the Royal Geographical Society, London, but a few additional rules of spelling have been introduced by me, to meet the requirements of the Australian pronunciation.

Eighteen letters of the English alphabet are sounded, comprising

¹ Journ. Roy. Soc. N. S. Wales, XXXVIII., pp. 297-304.

thirteen consonants, namely: b, d, g, h, k, l, m, n, p, r, t, w, y, and five vowels: a, e, i, o, u.

As far as possible, vowels are unmarked, but in some instances, to prevent ambiguity, the *long* sound of \bar{a} , \bar{e} , \bar{i} , \bar{o} and \bar{u} are given as here represented. Where the *short* sound of these vowels was otherwise doubtful, they are marked thus: \check{a} , \check{e} , \check{o} and \check{u} .

It is frequently difficult to distinguish between the short sound of a and that of u. A thick sound of i is occasionally met with, which closely resembles the short sound of u or a.

B has an intermediate pronunciation between its proper sonant sound and the surd sound of p. The two letters are practically interchangeable.

G is hard in all cases, and often has the sound of k, with which it is generally interchangeable.

W, when it commences a syllable or word, has its ordinary English sound. The sound of wh in our word "what" has no equivalent in the native tongue. When W occurs in the middle or at the end of a syllable, it is pronounced as in the English words "pawn" and "law" respectively.

Ng at the beginning of a word or syllable has a peculiar nasal sound as in the English word "singer." If we alter the syllabification of this word and write it "si-nger," then the ng of "-nger" will represent the aboriginal sound. Or if we take the expression "hang up" and change it into "ha-ngup," and then pronounce it so that the two syllables melt into each other, the ng of "-ngup" will also be the sound required. At the end of a syllable, ng has the sound of ng in king.

The sound of the Spanish \tilde{n} frequently occurs. At the beginning of a word or syllable it is given as ny, but when terminating a word the Spanish letter \tilde{n} is used.

Dh is pronounced nearly as th in "that," with a slight sound of d preceding it. Nh has likewise nearly the sound of th in that, with a perceptible initial sound of the n.

Th is frequently used at the commencement of a word instead of dh, and in such cases an initial t sound is substituted for that of the d. Dh and th are generally interchangeable. At the beginning

ž

of a word our English sound of d and t seldom occurs; it is generally pronounced dh or th, in the way just explained.

A final h is guttural, resembling ch in the German word "joch."

Y at the commencement of a word or syllable preserves its habitual sound.

R in general has a whirring sound, at other times it is rolled, and occasionally the English value is assigned to it.

T is interchangeable with d, p with b, and g with k, in most of the words in which these letters are used.

Ty or dy at the commencement of a syllable or word has nearly the sound of the English j or Spanish ch, thus -dya in the word wom-ba-dya, closely resembles cha or ja.

Some native words terminate with ty, as brety, the hand. This word can be pronounced exactly by assuming e to be added to the final y, making it bret-ye. Then commence articulating this word, including the y, but stopping short without sounding the added e. An approximate pronunciation can also be obtained by substituting ch for the y, making it bretch, but omitting the final hissing sound when pronouncing it. In some of the words in the vocabulary I have given the terminal letters tch instead of ty, as being more easily mastered by lay readers.

In order to express the native sound of some words, I have used the initial letters wr and mr. The word $wr\check{u}k$, the ground or earth, can be got exactly by making it wu- $r\check{u}k'$, and then pronouncing it as one syllable, with the accent on the last letter. Wring, the ear, can be similarly articulated. Mring, the eye, can be pronounced by making it mu-ring', and treating it as one syllable. Mrety or mretch, fire, can be pronounced in the same way.

ARTICLES.

The indefinite article, "a," is not represented; but the demonstrative pronouns, in their numerous modifications, supply the place of the difinite article, "the." The adverbs "here" and "there," in their several native forms are treated as demonstratives, and are then substitutes for the definite article. Many of them are subject to inflection for person and number, and some have causative suffixes.

Nouns.

Nouns are subject to variation on account of number, gender and case, the inflection being effected by means of postpositions.

Number.—There are three numbers. The singular number denotes one; the dual, two or a pair; the plural number, more than two. Ngurka, a native bear. Ngurkabulang, a couple of bears. Ngurkawamba, several bears.

Gender.—In the human family sex is distinguished by the employment of different words. Mawp, a man. Kurragan, a woman. The gender of animals is distinguished by the words brangula and yuggana, placed after the name of the animal. Ngurka brangula, a male bear; ngurka yuggana, a female bear.

For a few of the animals, a specific word represents the male, without naming the creature, but in the case of the female, the animal's name must be stated, followed by the distinguishing word, yuggana. When the name of any animal is mentioned, without some word signifying the sex, the masculine gender is understood.

Case.—The cases are indicated by inflections—the following being the principal.

Nominative: This case merely names the subject, and is without flection. Gungarang, an opossum; burru, a kangaroo; buran, a spear.

Causative: This represents the subject in action, and is used with a transitive verb. Mawpu gungarang bundan, a man an opossum killed. Kurraganu kalkun mangan, a woman an eel caught.

Genitive: A peculiarity of this case, which I was the first author to report in any Australian language, is that the property and the proprietor each take a suffix. Bagurdyu mawpa, a man's boomerang.

Every object or article over which ownership can be exercised is subject to inflection for person and number; as, bagurdya, my. boomerang; bagurngunna, thy boomerang; bagurnga, his boomerang, and so on. The dual and plural contain "inclusive" and "exclusive" forms in the first person.

¹ "The Thoorga Language," Queensland Geographical Journal (1901), Vol. XVII., pp. 52-53.

Instrumental: When an instrument is the remote object of the verb, it takes the same suffix as the causative. Mawpu burru bundan buranu, a man a kangaroo killed with a spear.

Accusative: This is the same as the nominative.

There are inflections to denote motion towards or away from any place or thing. Banggea, towards a camp. Bangga, away from a camp.

Adjectives.

Adjectives succeed the nouns they qualify and take the same inflections for number and case. The suffix is often omitted from one of the words, leaving the noun only, or the adjective only, to indicate the declension. Comparison is effected by two positive statements, such as: This is good—that is bad.

Pronouns.

Pronouns are inflected for persion, number and case, but are without gender. The following are examples in the singular number of the nominative and possessive pronouns:

Singular { First personal Second personal First per	rson Thou	Ngaiu Ngindu Mindha	Mine Thine His	Ngaindya Ngingunna Ngaianga
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------	---------------------------	----------------------	-----------------------------------

In the dual and plural forms of the pronouns there is a double "we" in the first person, marked "inclusive" and "exclusive" respectively.

Dual	First person Second person Third person	{ We, inclusive { We, exclusive You They	Ngallu Ngallung Ngindubul Mindhabullong
Plural	First person Second person Third person	{ We, inclusive { We, exclusive You They	Ngangun Ngangunnang Ngindigan Mindhagullang

These full forms of the pronouns are not much used, except in answer to a question, or assertively. If some one ask, "Who is going hunting?" a man may answer, Ngaiu, "I am," or Ngallung, "we (dual exclusive) are." If an inquiry be made, "Whose food is this?" some one may reply, pointing to a certain individual, Ngaianga, "his," and so on.

There is but little regularity in the pronouns of the third person in any of the numbers. This is owing to a word more or less different being used to express whether the person meant is near, or at some distance; whether he is going away from, or coming towards, the speaker; whether he is in the front, or in the rear, and so on.

Interrogatives: Who, nganinde? What, nganna? How many, nau-wun?

Demonstratives: Dyinda, this or here. Mindha, that or there. There it is, munda. These demonstratives are declinable for the dual and plural numbers.

There are likewise forms of the pronouns meaning "for me," "from me," "with me," etc., which extend through all the persons and numbers.

Verbs.

Verbs have the usual numbers, persons and moods, as well as an inclusive and exclusive form in the first person of the dual and plural. The following is a short conjugation of the verb "to strike or beat." In most Australian languages the word for striking also means to kill.

Indicative—Śingular.

Person.	Present.	Past.	Future.
First person	Bundanetch	Bundadya	Bundinga
Second person	Bundadu	Bundani	Bundinyin
Third person	Bunda	Bundan	Bundin

Although the inflections on the above words sufficiently indicate the person to a native listener, there would be no objection to prefixing the full pronoun, as, Ngaiu bundanetch, Ngindu bundadu, and so on.

The future tenses of the first person of the dual and plural are as under:

Dual	{ We, inclusive, shall beat We, exclusive, shall beat	Bundinyil Bundinyillung
Plural	{ We, inclusive, shall beat We, exclusive, shall beat	Bundingun Bundingunnang
Imperative	Beat	Bundin!

Reflective.

The reflective form of the verb describes an action which the subject executes directly upon himself:

I am beating myself, Bundhattharanetch. All the remaining persons and numbers can be inflected in the same way.

RECIPROCAL.

There is a form of the verb to express that two or more persons are reciprocally doing the act described:

We, dual, are beating each other, Bundhaiadyillung.

We, plural, are beating each other, Bundhaiagundhiang; and so on for the second and third persons of the dual and plural.

In the past and future tenses of verbs, there are variable terminations to indicate that the act described was done in the immediate, recent, or remote past; or that the act will be performed in the proximate, or more or less distant future. That there was, or shall be, a repetition or continuance of the action, and other modifications of the verbal suffixes, which must be passed over for the present.

Owing to the several inflections of the verb in the past and future tenses just referred to, it is often found convenient, especially when speaking in the dual and plural, to prefix a complete pronoun from the table of pronouns. This leaves the termination of the verb freer for the various suffixes required to convey the different meanings.

There is no special form for the passive voice. The sentence, "a man was kicked by an emu," would be expressed by the paraphrase, "an emu kicked a man."

Adverbs.

Yes, nyung. No, kalligo. To-day, wadya. This evening, wariñ. Yesterday, buna. To-morrow, mimburiñ. By and by, kalla. Some time back, buni-i. Here or this, dyinda. There or that, mindhi. Away yonder, bubburike. Where, ngulman. Dhūnggo, here. I am here, dhūnggomanetch; thou art here, dhūnggomangunna; he is here, dhūnggomana.

PREPOSITIONS.

The equivalents of our English prepositions are in some cases separate words, but are also frequently expressed by a verb, as in the Dyirringañ¹ and other languages.

¹ Journ. Roy. Soc. N. S. Wales (1902), Vol. XXXVI., p. 166.

Some prepositions can be inflected for person and number. In front of me, dhangullindya. In front of thee, dhangullingunna. In front of him, dhangullana.

NUMERALS.

One, gu-du-ge or gu-dug. Two, bolang. Several, bunganbandhak.

BIRDHAWAL VOCABULARY.

This vocabulary comprises about 285 of the most commonly used words in the Mŭkdhang speech, every item having been noted down by myself from the mouths of the natives. Words of the same kind are grouped under common headings. It is thought that this arrangement will be more convenient for reference and comparison than if tabulated alphabetically.

Family Terms.

Mankind	mawp	Novice	dhūrtungurriñ
A man	gidyang	A woman	kurragan
Old man	muyulung	Wife	bulamirnda
Husband	bulamirnda	Small girl	mullangan
Song-maker	birrarak	Elder sister	mamang
Clever man	badāra	Younger sister	landhakaiang
Guardian of novice		Father	babang
Sorcerer	mullamulliñ	Father's father	wēn'-tuin
Small boy	lity	Mother	yuggan
Elder brother	gandhang	Spirit or ghost	birrabang
Younger brother	bāmun	Master	munggan¹

Parts of the Body.

Head	duduk	Shoulder	kutthak
Forehead	ngirrame	Elbow	dyilmbat
Hair of head	mundyugan	Hand	bretch or brety
Beard	yerrañ	Thigh	thurrin
Eve	mring	Shin	gurrat
Nose	gung	Knee	bun
Throat	dhuluty	Foot	dyinnang
Back of neck	nainindya	Heel	murung
Ear	wring	Sinew of heel	ngurrang
Mouth	dhang	Blood	gruk
Lips	yandang	Fat	kullunga
Teeth	ngurndak	Bone	kurraduk
Breast, female	bāk	Penis	dhun
Navel	nyuranyurin	Scrotum	dhurt
Afterbirth	wandurung	Vulva	dhallung

¹ This term, *munggan*, is applied to any elderly man who is in command for the time being, whether in a family circle, a hunting excursion, a corroboree, a ceremonial gathering, and so on.

Belly	buluñ	Copulation	thabundyan
Heart	yukarang	Semen	barringunna
Tongue	thaliñ	Urine	wirrakin
Liver	bōthunna	Excrement	gunungunna
Arm	nhurung	Venereal	wadyuwadyung

Natural Objects.

Mammals.

Native-bear	ngurka	Flying squirrel, sa	mall waikang
Dog	bañ	Ringtail opossum	balgai
Whiteman's dog	wandaial	Kangaroo	burru
Opossum	gungarang	Wallaroo	wandur
Kangaroo-rat	dyimmang	Platypus	gamallang
Native-cat	gunumburung	Porcupine	diddidi
Tiger-cat	gundurung	Water-rat	batbu
Rockwallaby	waiat	Wombat	bunggadhang
Flying squirrel, la		Bandicoot, long r	
Flying squirrel, n	nedium ngat-ngat	Bandicoot, short 1	nose manyuk

Birds.

Crow	marrangan	Mopoke gogok	
Laughing jackass	gwak	Bronze wing pigeon gang-gang	
Curlew	gwan-gwan	Rosella parrot duñ	
Willy-wagtail	mumanggalang	Common hawk barakalgal	
Swan	gunyak	Plover birran-dhurran-dhurra	n
Eagle hawk	mirrung	White cockatoo brāk	
Emu¹	mai-au-ra	Black cockatoo nenak	
Magpie	guramagang	Black crestless cockatoo yaiak	
Black jay	wēbuk	Lyre bird bullit-bullit	
Black duck	bundverrung	•	

¹ Also called güngwan-güngwan, from its call.

Fishes and Reptiles.

Mullet	burbiañ	Turtle	ngeth
Ee1	galkun	Sleepy lizard	dyirri-dyirritch
Bream	kain	Black lizard	gurgurwurak
Trout	mŭndya	Black snake	gun'umbra
Frog	dhirragaratch	Brown snake	buli-buli
Tree iguana	dhurrang	Tiger snake	kugugun

Invertebrates.

Leech dhillang Blow-fly bǔmba Bulldog ant dyǔng House-fly gunadada				
-----------------------------------------------------------------------	--	--	--	--

Trees and Plants.

A squeaking tree Ti-tree Stringybark Wattle Ironbark Cherry tree White gum tree Ribbon gum	dyerad'deru brungal gun'unggur burrai murrage balluk	Snow gum Sally Peppermint Messmate Yam Ferns Mushroom	warrugang bubugu dyārang brēak milañ war-we gillūn
Ribbon gum Mountain ash	dyua dhuru	Reed	yerka

Weapons, Ornaments, etc.

Tomahawk	kuyan	Headband	dvalbatch
Yam stick	dhatch	Armbands	bibūrru
Wood spear	būrañ	Waist belt	dhuranggal
Reed spear	dhallandyil	Man's apron	burrañ
Spear lever	murriwan	Nose peg	gumburt
Bullroarer	tūrndun	Woman's apron	dyabañ
Boomerang	bāgur	Net bag	pattyung
Spear shield	birkumba	Doctor's bag	guragang
Waddy shield		Necklace	takawe
Fighting club		Canoe	guladung
Hunting club	būndi -	Paddle	gulamban

Adjectives.

	Adjectives.		
Alive	murulman	Slow	waddiakan
Dead	yuragat	Deaf	ngulla-wring
Large	barraude	Blind	ngulla mring
Small	ngullaburi	Strong	ngarrandyil
Tall or long	warkadi	Afraid	dyiran
Short	wombadya	Tired	durandyagat
Good	linya	Cold	mabuklani
Bad	ngallen	Angry	yerkaman
Hungry	miran	Sleepy	burumi
Thirsty	kyan¹	Glad	yallakani
Red	kugugun	Sorry	yugani
Black	gurumbura	Greedy	nganggalak
White	tarbandrung	Sick	murugani
Jealous	yukañ	Stinking	yugganman
Lame	kŭkadik	Pregnant	wattandyil
Empty	ngadyan	Hollow	ngunguyang
Full	bulitban	Narrow	ngallaburri
Quick	vangadvan		

¹ Pronounced in one syllable.

Verbs.

Eat Drink Sleep or rest Stand Sit Talk Tell Walk Run Chase Bring Take Pick up Throw down Break Beat or kill Fight Arise Fall down See Hear Give Sing Weep Cook	dhalane nungblane beandani thetyani nyani dhanggarani dhungani yangadyan bingadyan murunggani wanggadyan wanyandab'ila manganni kalak-tyukan kalakatch bundani bundaiakan bingadyan bibbagadyan dhakani wanggani yukananga watbuladyan nu-adyan gubanyan	Breathe Climb Dance Dive Conceal Jump Step over Laugh Scratch Forget Stare at Send Shine Suck Scold Swim Search for Spit Smell Throw Roast Whistle Pretend Vomit Sting	bimbani warkbani mundadyan mirp-gadyan nutyu'kan wambani wandhani tyat-yu-a-lad-yan walagaladyan wandaguni gaiatguni bindarin dakbatch thālan yakbani banggadyan ngunladyan dyuk-bladyan bunbuladyan wandyiggane gubaladyan wingadyan gatbaladyan kronggadyan bundadyan
Weep	nu-adyan		kronggadyan
Steal Ask	wirrunggani watbani	Call	kandadyan

APPENDIX.

LANGUAGE OF THE KURNAI TRIBE.

In a monograph published in 1902¹ I submitted an elementary grammar of the Günggaladhang, the language spoken by the Kurnai tribe, whose country is situated to the west of and adjoining that of the Birdhawal. In the paper referred to, the examples given in the pronouns and verbs were very much abridged, owing to exigencies of space, and therefore I am now desirous of supplementing what was then published, being the result of further investigations made by myself among the natives. If this additional information be read in conjunction with my memoir of five years ago, and the vocabulary of 300 words which accompanied it, the whole will then exhibit an outline of the grammar of the Günggaladhang tongue.

While many of the words of the Günggaladhang are nearly the same as those of the Birdhawal, there are a large number which are altogether different. The closest agreement is found among the pronouns and some of the verbs.

¹ Journ. Roy. Soc. N. S. Wales, XXXVII, pp. 92-106.

Pronouns.

The following additional examples are now supplied

Dual	First person $\left\{ \begin{array}{l} V \\ V \end{array} \right.$	Ve, inclusive, Ve, exclusive,	Ngallu Ngallang
Plural	First person $\left\{ \begin{array}{l} V \\ V \end{array} \right.$	Ve, inclusive, Ve, exclusive,	Ngangan Ngangannang

There are also forms for the second and third persons in all the numbers. The full forms of the pronouns given in this and the original table are employed chiefly in answering questions. In ordinary conversation the natives use the pronominal suffixes illustrated under the heading of Verbs.

VERBS.

In my former memoir, already quoted, in the second example of the inflection of verbs, at page 95, the past tense of the verb dhakani, "to see," was inadvertently set down as the present. I therefore wish to expunge lines 10 to 21 inclusive on page 05, and substitute the following fuller details of another verb, dhanggani, "to speak," in their stead:-

INDICATIVE MOOD-PRESENT TENSE.

Singular	{ First person, Second person, Third Person,	I speak, Thou speakest, He speaks	Dhangganetch Dhanggandu Dhangga
Past Tense.			
Singular	{ First person, Second person, Third Person,	I spoke Thou spokest He spoke,	Dhanggandha Dhangganinna Dhanggañ
Future Tense.			
Singular	{ First person, Second person, Third Person,	I shall speak, Thou shalt speak, 'He shall speak	Dhangginga Dhangginnin Dhanggiñ
Dual First	Person { We, inclusive, We, exclusive, Person { We, inclusive, We, exclusive,	shall speak, Dh shall speak, Dh shall speak, Dh shall speak, Dh	angginyal angginyallung anggingan anggingannang

IMPERATIVE MOOD.

Speak!

Dhanggin!

REFLEXIVE.

I am speaking to myself,

Dhanggattharanetch

RECIPROCAL.

We, dual, speak to each other,
We, plural, speak to each other,
Dhanggaiadyalliang
Dhanggaiagundhiang

Stated Meeting October 18, 1907.

President SMITH in the Chair.

PROF. HENRY H. DONALDSON read a paper on "The Growth of the Albino Rat as Compared with the Growth of Man," which was discussed by Professors Houston and Conklin.

Stated Meeting November 1, 1907.

President SMITH in the Chair.

Prof. Houston presented a verbal communication deprecating the use of the word "Aerogram" and discussed the use of other terms applied in this connection. He favored the terms "Hertzian or Marconic Telegraphy" and "Marconigram."

Stated Meeting November 15, 1907.

President SMITH in the Chair.

The following papers were read:

"Pastorius," by Professor M. D. Learned, which was discussed by Mr. H. La Barre Jayne.

"The New Theory of Earthquakes and Mountain Formation, as Illustrated by Processes Now at Work in the Depths of the Sea," by Prof. T. J. J. See. (See page 369.)